

QC/AMG-YELI/2022-23/W134/S1

Date: 02-02-2023

TEST REPORT

Sub: Testing of Pre-cast Material-Precast Slab (100mm thick).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,

Yelahanka Electrical Division,

BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

1. PHYSICAL TESTS ON PRECAST SLAB:

Sl No	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m ³)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm ²)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm ²)	Equivalent Cube Compressive Strength (N/mm ²)
1	50.00	90.00	0.469	2654.00	1.80	0.960	34.25	17.44	18.84	18.09	22.61
2	50.00	90.00	0.475	2687.95	1.80	0.960	35.06	17.86	19.28	18.51	23.14
3	50.00	90.00	0.487	2755.86	1.80	0.960	34.60	17.62	19.03	18.27	22.84

The result of the materials tested meets the standards and hence can be used for the work.

Sample Collected Site : Attur Lake Road

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92





QC/AMG-YELI/2022-23/W134/K1

Date: 07-02-2023

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

1. PHYSICAL TESTS ON KERB STONES:

Sl No	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m ³)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm ²)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm ²)	Equivalent Cube Compressive Strength (N/mm ²)
1	50.00	85.00	0.389	2330.78	1.70	0.960	26.90	13.70	14.80	14.20	17.76
2	50.00	85.00	0.394	2360.74	1.70	0.960	28.50	14.51	15.68	15.05	18.81
3	50.00	85.00	0.386	2312.80	1.70	0.960	27.70	14.11	15.24	14.63	18.28

The result of the materials tested meets the standards and hence can be used for the work.
From Nagenahalli Gate to Indian Petrol Bunk

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/C1

Date: 05-12-2022

1. TEST REPORT ON CEMENT:**Sub:** Testing of 53 Grade Cement Sample (IS 12269-1987).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref.:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

PHYSICAL TESTS ON CEMENTGrade * : 53,
Type * : O.P.C**TABLE 1.1:**

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	184 min	Shall not be less than 30 min
2	Final setting time	297 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.85 %	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	2.16 mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.45 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : Doddaballapur Main Road AC
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92
A/S
NEWZEN CONSULTANT BANGALORE

QC/AMG-YELI/2022-23/W134/PCC1

Date: 05-12-2022

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
		Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	63.80	0 -20	30- 70
10mm	26.10	0 -5	10- 35
4.75mm	3.40	-----	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	98.50	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	81.20	60-95	75-100	85-100	
01.18	65.10	30-70	55-90	75-100	
600.mic	39.60	15-34	35-59	60-79	
300.mic	23.80	5-20	8-30	12-40	
150.mic	8.50	0-10	0-10	0-10	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestal : Doddaballapur Main Road

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/PCC2

Date: 09-12-2022

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
		Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	58.90	0 -20	30- 70
10mm	32.40	0 -5	10- 35
4.75mm	3.60	-----	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	97.50	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	89.00	60-95	75-100	85-100	
01.18	72.40	30-70	55-90	75-100	
600.mic	47.10	15-34	35-59	60-79	
300.mic	26.90	5-20	8-30	12-40	
150.mic	8.50	0-10	0-10	0-10	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : Major Sandeep Unni Krishnan Road

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/CE1

Date: 12-12-2022

1. TEST REPORT ON CEMENT:**Sub:** Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref: Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

PHYSICAL TESTS ON CEMENTGrade * : 53,
Type * : O.P.C**TABLE 1.1:**

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	196 min	Shall not be less than 30 min
2	Final setting time	274 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.79 %	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	2.36 mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.92 N/Sq mm	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestal : Major Sandeep Unni Krishnan Road
AS
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

QC/AMG-YELI/2022-23/W134/FA1

Date: 12-12-2022

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			Remarks
		Percentage Passing			
		Zone-i	Zone-ii	Zone -ii	
04.75	98.10	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	86.40	60-95	75-100	85-100	
01.18	74.70	30-70	55-90	75-100	
600. mic	52.90	15.34	35-59	60-79	
300.mic	20.40	5-20	8-30	12-40	
150.mic	8.20	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	18.75 %	-----
2	Silt Content	----	0.68 %	Not more than 8%
3	Specific Gravity	----	2.61	-----

The result of the materials tested meets the standards and hence can be used for the work.

For Pole Pedestal : Major Sandeep Unni Krishnan Road

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/CA1

Date: 12-12-2022

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002)	
		% Passing	
	20 mm Sample	Single size	Graded
40 mm	100.00	100.00	100.00
20 mm	96.20	85-100	90 - 100
10 mm	49.70	0 - 20	25 - 55
4.75 mm	9.40	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	Requirements as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	23.90 %	Not to exceed 25 %
2.	Crushing value	28.16 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestal : Major Sandeep Unni Krishnan Road

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/S1

Date: 12-12-2022

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10 and 12 mm TMT Steel.

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

TABLE - 1

SL No	Details	For 10 mm		For 12 mm	
		Test Results	Min Req. as per IS 1786-2008	Test Results	Min Req. as per IS 1786-2008
01	Observed diameter of bar	10.0 mm	10.0 mm	12.0 mm	10.0 mm
02	Observed Wt/m Length Kg/m	0.624	0.567	0.892	0.854
03	Proof stress/Yield stress, f_y , N/mm ²	527.0	500.0	543.0	500.0
04	Bend/ Re bend Test	Ok	---	Ok	---
05	Percentage of Elongation, %	21.40	12.00	21.90	12.00
06	Ultimate Tensile Strength N/mm ²	632.0	545.0	639.0	545.0

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : Major Sandeep Unni Krishnan Road



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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

ALS

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Sri. Madhusudhan A N.

QC/AMG-YELI/2022-23/W134/CB1

Date: 21-12-2022

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 07days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref.:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE I.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	14-12-22	21-12-22	07	22500	355	15.78	15.41
	002	"	"	"	"	340	15.11	
	003	"	"	"	"	345	15.33	

The result of the materials tested meets the standards and hence can be used for the work.

For Pole Pedestal : From Nagenahalli Gate to Indian Petrol Bunk


As

A/S

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

QC/AMG-YELI/2022-23/W134/CB1A

Date: 11-01-2023

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 28days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	14-12-22	11-01-23	28	22500	480	21.33	21.19
	002	"	"	"	"	465	20.67	
	003	"	"	"	"	485	21.56	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : From Nagenahalli Gate to Indian Petrol Bunk
A/-Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

QC/AMG-YELI/2022-23/W134/CB2

Date: 24-12-2022

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	17-12-22	24-12-22	07	22500	320	14.22	14.44
	002	"	"	"	"	335	14.89	
	003	"	"	"	"	320	14.22	

The result of the materials tested meets the standards and hence can be used for the work
For Pole Pedestal : For Footpath From House No-804

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



QC/AMG-YELI/2022-23/W134/CB2A

Date: 14-01-2023

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 28days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	17-12-22	14-01-23	28	22500	500	22.22	21.70
	002	"	"	"	"	480	21.33	
	003	"	"	"	"	485	21.56	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : For Footpath From House No-804
ACAsst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92A/s

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Sd/- (Signature)

QC/AMG-YELI/2022-23/W134/CB3

Date: 26-12-2022

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	19-12-22	26-12-22	07	22500	350	15.56	16.07
	002	"	"	"	"	360	16.00	
	003	"	"	"	"	375	16.67	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestal : For Cycle Track From Araka Hospital Road

AS

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



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Suraksha Electricals (Pvt) Ltd
Suraksha Electricals

QC/AMG-YELI/2022-23/W134/CB3A

Date: 16-01-2023

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 28days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref.:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	19-12-22	16-01-23	28	22500	475	21.11	21.48
	002	"	"	"	"	490	21.78	
	003	"	"	"	"	485	21.56	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : For Cycle Track From Araka Hospital RoadAsst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92ALS


QC/AMG-YELI/2022-23/W134/CB4

Date: 29-12-2022

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,

Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	22-12-22	29-12-22	07	22500	335	14.89	14.67
	002	"	"	"	"	325	14.44	
	003	"	"	"	"	330	14.67	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestal : Government College

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Signature
Sri. Madhusudhan A N.
M/s Suraksha Electricals



QC/AMG-YELI/2022-23/W134/CB4A

Date: 19-01-2023

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 28days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04. }**Ref.:** Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	22-12-22	19-01-23	28	22500	480	21.33	21.04
	002	"	"	"	"	465	20.67	
	003	"	"	"	"	475	21.11	

The result of the materials tested meets the standards and hence can be used for the work.
For Pole Pedestral : Government CollegeAsst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 02Als-

SRI MADHUSUDHAN A N
M/S SURAKSHA ELECTRICALS
BANGALORE

QC/AMG-YELI/2022-23/W134/CB5**Date: 31-12-2022****1. TEST REPORT ON CEMENT CONCRETE CUBES:****Sub:** Testing of Concrete Cubes (for 07days Compressive Strength).**{Project*:** Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}**Ref.:** Material testing/PMC/22-23.**Report Required for:** Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.**Name of the Agency/Contractor*:** M/s Suraksha Electricals. Sri. Madhusudhan A N.**RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE****CUBE SPECIMENS****Dimensions of Specimen** : 150 X 150 X 150mm**Grade of Concrete*** : M₂₀**TABLE 1.1:**

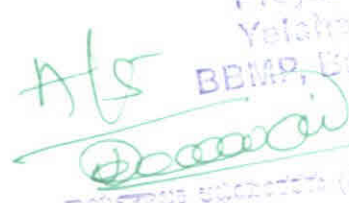
Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	24-12-22	31-12-22	07	22500	345	15.33	14.81
	002	"	"	"	"	325	14.44	
	003	"	"	"	"	330	14.67	

The result of the materials tested meets the standards and hence can be used for the work.

For Pole Pedestal : Chowdeshwari Kalyana Manthapa



Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore -02



CHOWDESHWARI KALYANA MANTHAPA
24.12.22, 31.12.22



QC/AMG-YELI/2022-23/W134/CB5A

Date: 21-01-2023

1. TEST REPORT ON CEMENT CONCRETE CUBES:**Sub:** Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04.}

Ref.: Material testing/PMC/22-23,Report Required for: Assistant Executive Engineer,
Yelahanka Electrical Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s Suraksha Electricals. Sri. Madhusudhan A N.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M₂₀**TABLE 1.1:**

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
i	001	24-12-22	21-01-23	28	22500	495	22.00	21.93
	002	"	"	"	"	500	22.22	
	003	"	"	"	"	485	21.56	

The result of the materials tested meets the standards and hence can be used for the work.

For Pole Pedestal : Chowdeshwari Kalyana Manthapa

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92



NC/QC/EYNK/2023-24/PMC

Date: 10-04-2023

To,
The Executive Engineer (ELE)
Yelahanka Division,
Bangalore.

"FREQUENCY AND QUALITY REPORT"

Dear Sir,

Subject: Regarding Quality Report for the below mentioned work.

NAME OF WORK:- Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04

Item No	Description of work	Unit	Qty	No of Samples Tested	Frequency	Results Standards
1	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The	Cum	11.35	2	Per 100 cum	Meets Morth V Revision Standards
2	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical	Tonne	6.72	2	Per Dia	Meets Morth V Revision Standards
3	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure	Cum	128.26	10	Per 50 cum	Meets Morth V Revision Standards
2	Providing and Fixing Pre cast covering Slab 100mm thick made out of CC, jelly 20mm Down size with steel reinforcement	Sqm	108.00	1	Per 500 Sqm	Meets Morth V Revision Standards
3	Providing and fixing pre cast solid cement concrete kerb stones made out of CC M20 with top and bottom width 114 and 165	Nos	522.00	1	Per 500 Nos	Meets Morth V Revision Standards

With respect to the above subject & name of the work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the 1st and Final bill. The all the samples satisfies the standards requirements as per MORTH V Revision 2013.

Thanking you,

With Regards,



For Newzen Consultants Bangalore

ACS
[Signature]



NC/QC/EYNK/2023-24/PMC

Date: 10-04-2023

To,
The Executive Engineer (ELE)
Yelahanka Division,
Bangalore.

"PMC CERTIFICATE AND INSPECTION REPORT"

Dear Sir,

Subject: Regarding Inspection Report for the below mentioned work.

NAME OF WORK:- Providing Decorative / Ornamental / Pathway Lights with Poles in Parks and Footpaths and energy efficient street lights, real time street light control switches, control wires, poles ABC cable and other accessories in Ward No.01, 03 and 04

Item No	Description of work	Unit	Qty	Remarks
1	Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such similar works	Cum	126.52	Work done upto the Billed Quantity and the Quality is Satisfactory
2	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates	Cum	11.35	Work done upto the Billed Quantity and the Quality is Satisfactory
3	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.	Tonne	6.72	Work done upto the Billed Quantity and the Quality is Satisfactory
4	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works &	Cum	128.26	Work done upto the Billed Quantity and the Quality is Satisfactory
5	Providing and Fixing Pre cast covering Slab 100mm thick made out of CC, jelly 20mm Down size with steel reinforcement including form work, curing, including	Sqm	108.00	Work done upto the Billed Quantity and the Quality is Satisfactory
6	Providing and fixing pre cast solid cement concrete kerb stones made out of CC M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm	Nos	522.00	Work done upto the Billed Quantity and the Quality is Satisfactory
7	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti	Nos	700.00	Work done upto the Billed Quantity and the Quality is Satisfactory
8	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti	Nos	80.00	Work done upto the Billed Quantity and the Quality is Satisfactory
9	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti	Nos	190.00	Work done upto the Billed Quantity and the Quality is Satisfactory



Item No	Description of work	Unit	Qty	Remarks
10	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti	Nos	250.00	Work done upto the Billed Quantity and the Quality is Satisfactory
11	Supplying and Fixing of.....mm dia class A GI pipe bracket upto 2 ms long bent at suitable angle and fixing to this bracket 1x40/2x40 W fluorescent tube street	Each	700.00	Work done upto the Billed Quantity and the Quality is Satisfactory
12	Fabricating, supplying and erecting swaged tubular pole of height ...Mtr having three sections, and providing two coats of red oxide paint and finished	Each	186.00	Work done upto the Billed Quantity and the Quality is Satisfactory
13	Supplying and fixing telescopic M.S. bracket fabricated by using 0.5m length 4" dia telescopic M. S. pipe, with 2" dia 1.5m long M. S. bracket and are welded with	Each	186.00	Work done upto the Billed Quantity and the Quality is Satisfactory
14	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC extruded Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1,	Km	2.80	Work done upto the Billed Quantity and the Quality is Satisfactory
15	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC extruded Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1,	Km	1.65	Work done upto the Billed Quantity and the Quality is Satisfactory
16	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC extruded Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1,	Km	0.32	Work done upto the Billed Quantity and the Quality is Satisfactory
17	Laying of cable in Existing Trench/GI pipe/Stone Ware/RCC Hume pipe using Wooden/Aluminum Rollers as directed by the departmental staff 2.5 to 25 Sqmm	Km	4.45	Work done upto the Billed Quantity and the Quality is Satisfactory
18	Laying of cable in Existing Trench/GI pipe/Stone Ware/RCC Hume pipe using Wooden/Aluminum Rollers as directed by the departmental staff 35 to 95 Sqmm	Km	0.32	Work done upto the Billed Quantity and the Quality is Satisfactory
19	Earth work excavation for cable trench of 0.4 to 0.6 Mtr. Width and Depth upto 1 Mtr including trial pits, depositing on bank upto a lead of 50 Mtr, Supplying	Cum	577.44	Work done upto the Billed Quantity and the Quality is Satisfactory
20	Refilling the cable trenches with selected available earth from trench excavation including watering, consolidation in layers of 15 cm. Thickness including	Cum	577.44	Work done upto the Billed Quantity and the Quality is Satisfactory
21	Supplying and drawing Flexible Multicore Cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS:8130-	Mtrs	2256.00	Work done upto the Billed Quantity and the Quality is Satisfactory
22	GI Pipe B - Class as per IS-1239 GI Pipe - 40 mm Dia	Mtrs	50.00	Work done upto the Billed Quantity and the Quality is Satisfactory
23	Supplying of Epoxy Terminating Kit (Pothead) suitable for 1.1 kV, LTUG Cable Up to 4C x 50 Sqmm	Nos	10.00	Work done upto the Billed Quantity and the Quality is Satisfactory

Item No	Description of work	Unit	Qty	Remarks
24	Supplying Heavy Duty Copper Terminal Long Barrel.25 Sqmm Copper Terminal, Apprx Wt: 11 Gm	Nos	700.00	Work done upto the Billed Quantity and the Quality is Satisfactory
25	Rod type of earthing using 40 mm Dia, 3 Mtr long MS rod as ground rod, in earth pit of 300 mm width and 3300 mm depth and using 50x6 mm flat welded to	Nos	10.00	Work done upto the Billed Quantity and the Quality is Satisfactory
26	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc.,and painted with 2 coats of red oxide and	Mtrs	80.00	Work done upto the Billed Quantity and the Quality is Satisfactory
27	Fabricating supplying and mounting MS box made out SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation,	Sqmm	350000.00	Work done upto the Billed Quantity and the Quality is Satisfactory
28	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase	Nos	10.00	Work done upto the Billed Quantity and the Quality is Satisfactory
29	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase	Nos	1220.00	Work done upto the Billed Quantity and the Quality is Satisfactory
30	Supplying & fixing of retrofit type - LED bulb.....W with OPAL acrylic diffuser comprising of LED source with CCT 6500 degree K, CRI> 70%. efficacy >80 lumen per	Each	31.00	Work done upto the Billed Quantity and the Quality is Satisfactory
31	Supplying Spiral Earth Electrode	Each	31.00	Work done upto the Billed Quantity and the Quality is Satisfactory
32	Dismanting of Steel/I- Beam/Tubular poles (90% of the Pole erection charges.p2/2.01 Rs 688.00x90%=619.2)	Each	50.00	Work done upto the Billed Quantity and the Quality is Satisfactory
33	Releasing of existing LED street light(Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts,	Each	190.00	Work done upto the Billed Quantity and the Quality is Satisfactory
34	Mobile Hydraulic Crane 35 t capacity for releasing and refixing of High Mast	hour	150.00	Work done upto the Billed Quantity and the Quality is Satisfactory
35	Supply of 1.1 kV, LT Aerial Bunched Cable, XLPE insulation confirming to IS-14255: 1995 3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum	Km	7.79	Work done upto the Billed Quantity and the Quality is Satisfactory
36	Piercing Connector Suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connection	Nos	360.00	Work done upto the Billed Quantity and the Quality is Satisfactory
37	Dead End Clamp/Anchor Clamp Assembly 25 to 95 Sqmm Bare Messenger(Exclusive of Pole Clamp and Eye Hook)	Nos	24.00	Work done upto the Billed Quantity and the Quality is Satisfactory



Item No	Description of work	Unit	Qty	Remarks
38	Suspension Clamp Assembly 16 to 70 Sqmm Bare Messenger (Exclusive of Pole Clamp and Eye Hook)	Nos	60.00	Work done upto the Billed Quantity and the Quality is Satisfactory
39	Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x25)	Km	7.79	Work done upto the Billed Quantity and the Quality is Satisfactory
40	Erection of Suspension Clamp - 25 to 95 Sqmm bare messenger	Nos	60.00	Work done upto the Billed Quantity and the Quality is Satisfactory
41	Installation of Insulation piercing connector for Main to Street Light Main : 16-95 Sqmm, Tap: 1.5-10 Sqmm (EP95)	Nos	360.00	Work done upto the Billed Quantity and the Quality is Satisfactory
42	Fixing of Dead End Clamp	Nos	24.00	Work done upto the Billed Quantity and the Quality is Satisfactory
43	Centralized Control & Monitoring Sysem (CCMS) for Streetlights consisting of: Supply and erection of Thyristor based single phase smart streetlight control	Nos	10.00	Work done upto the Billed Quantity and the Quality is Satisfactory
44	Supply and errection of Single phase 63 Amps Thyristor based Streetlight control system consisting of: micro controller based electronic Timer with RTC, 2x16 LCD	Nos	50.00	Work done upto the Billed Quantity and the Quality is Satisfactory
45	Supply and erection of 3 Mtr long Aluminium decorative Pole with 60 watt LED Light made out of single piece extruded alluminium 75x150mm with 3	Nos	40.00	Work done upto the Billed Quantity and the Quality is Satisfactory
46	Supply and erection of 3 Mtr long Aluminium Pole with 60 watt LED Light made out of extruded alluminium 75x150mm with 3 MM thickness, self "U" type in built	Nos	28.00	Work done upto the Billed Quantity and the Quality is Satisfactory
47	Supply of 3 Mtr Powder Coated Mild Steel Pole with 3mm thickness having top Triangle shape with light 36w and arm light 24w Body Colour Grey/Black . 3mtr	Nos	20.00	Work done upto the Billed Quantity and the Quality is Satisfactory
48	Supply of 3 Mtr Powder Coated Mild Steel Pole with 3mm thickness having top Giraffe neck shape with light 36w and Body Colour Grey/Black . 3mtr pole will have	Nos	40.00	Work done upto the Billed Quantity and the Quality is Satisfactory
49	Supply of 3 Mtr Powder Coated Mild Steel Pole with 3mm thickness having top Triangle shape, Arm will have 600mm length at one side PCB will be palced with	Nos	25.00	Work done upto the Billed Quantity and the Quality is Satisfactory
50	Supply of Pressure die Cast body housing landscape Round Light, dimensions Dia:600mm,Hight 430mm and mounting dia OD 60mm, LED Light having 60w output	Nos	52.00	Work done upto the Billed Quantity and the Quality is Satisfactory
51	Fabricating, Supplying and errection of decorative bent type Tuskar Conical Street light pole with hot dip Galvanized with BSEN 10025 grade S 355 JO Steel plate	Nos	31.00	Work done upto the Billed Quantity and the Quality is Satisfactory

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Item No	Description of work	Unit	Qty	Remarks
52	Fabricating, Supplying and erection of decorative Zig-Zag bent type Street light pole with hot dip Galvanized with BSEN 10025 grade S 355 JO Steel plate for shaft, IS	Nos	74.00	Work done upto the Billed Quantity and the Quality is Satisfactory
53	Fabricating, Supplying and erection of Garden speaker protective enclosure of size H 91.55mmxL30.50mmxB30.50mm fabricated out of MS	Nos	80.00	Work done upto the Billed Quantity and the Quality is Satisfactory
54	Laying of UG Cables by trenchless technology by adopting horizontal boring & Drawing of cable including preparation at site With HDPE Pipe i) Normal	Mtrs	304.00	Work done upto the Billed Quantity and the Quality is Satisfactory

With respect to the above subject & name of the work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the 1st and Final bill

Thanking you,

With Regards,

For Newzen Consultants Bangalore



A/s
[Signature]
NEWZEN CONSULTANTS (PVT) LTD.
BANGALORE, KARNATAKA